

Appl. No. 09/650,275
Amdt. dated July 18, 2003
Reply to Office Action of April 24, 2003

PATENT

REMARKS/ARGUMENTS

Claims 1-8 and 14-27 are pending.

The Examiner objected to claims 1-8 because of the language "elongate region in direct contact with and said gap." Accordingly, Applicant has amended claim 1 so that it now reads "elongate region and in direct contact with said gap." It is respectfully requested that the objection be withdrawn.

Claims 1-8 and 14-27 stand rejected under 35 U.S.C. § 112, first paragraph. The Examiner indicates that Figure 3 depicts a conductive seal ring 300 extending around the entire periphery of the die in direct contact with the die through part of elongate region 302. Thus, the Examiner contends that there is no support for the claim limitation of a conductive seal ring extending around the entire periphery of the die in direct contact with the die in every part (that is, throughout) of the elongate region as recited in claims 1, 14 and 18. Accordingly, Applicant has amended claims 1, 14, and 18 to make it clear that the conductive seal ring extends around the entire periphery of the die in direct contact with the die along the elongate region and in direct contact with the gap. It is respectfully submitted that this is supported on pages 5, and 6 of the Specification as well as in Figure 3. Accordingly, it is respectfully requested that the rejection be withdrawn.

Claim 1-14, 6-7, 14-21 and 23-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Joardar et al. (U.S. Patent No. 5,475,255) in view of Miyata (U.S. Patent No. 5,491,658).

Claims 5, 8, 22 and 25-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Joardar et al. and Miyata, as applied to claims 1, 14 and 18, and further in view of Applicant's admitted prior art.

These rejections are respectfully traversed and reconsideration is respectfully requested.

It is respectfully submitted that element 141 in Miyata is an N⁺ type diffusion layer (see col. 6, lines 23-26). Accordingly, it is not a conductive seal ring. In contrast, applicant's invention provides a conductive seal ring that extends around the entire periphery of

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the die in direct contact with the die along the elongate region. Furthermore, the conductive seal ring is in direct contact with the gap that is defined by the elongate region. Thus, the electrical contact between the substrate and the seal ring is inhibited by the elongate region except at the gap defined by the elongate region. Thus, the seal ring does not provide a short circuit to transmit noise. However, the limited electrical contact between the substrate and the seal ring at the gap allows the seal ring to perform its discharge function.

Accordingly, since Joardar et al. do not teach, disclose or even suggest a die seal structure for a semiconductor die or a semiconductor device as recited in claims 1, 14, and 18, it is respectfully submitted that these claims are allowable.

Claims 2-8, 15-17 and 19-27 depend, either directly or indirectly, on claims 1, 14, and 18, respectively, and therefore, they are allowable for the reasons claims 1, 14 and 18 are allowable. These claims further define and augment the features of applicant's invention.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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